

AB predetermined amount of time, said predetermined amount of time being dependent on the architecture of said mobile station.

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Please delete Claim 19 and Claim 30 without prejudice.

Remarks

This amendment is in response to the Office Action mailed 3/19/02 (Paper No. 4) in regard to the above-identified patent application. Claims 1,6,9,13,17,24, and 29 have been amended above. Claims 19 and 30 have been deleted above without prejudice. Claims 1-18, 20-29, and 31 are pending in the case.

Claims 6,13, and 29 were objected to because of informalities. Claims 6,13, and 29 have been amended above to correct the informalities.

Claims 1-31 were rejected under 35 U.S.C. 102(e) as being anticipated by Swanchara et al. (US 6,108,542; herein after referred to as Swanchara). The Examiner is requested to reconsider the rejections in light of the arguments presented below.

In accordance with 37 C.F.R. §1.121 (as amended on 11/7/2000) the rewritten claim(s) above are shown on separate page(s) marked up to show all the changes relative to the previous version of that claim.

In accordance with 37 C.F.R. §1.121 (as amended on 11/7/2000) the specification replacement section above is shown on a separate page, marked to show all the changes relative to the previous version of the section.

35 U.S.C. 102(e) Rejections

Claim 1, as amended above, recites a method of evaluating a base station without missing a digital control channel paging frame. The method includes the steps of receiving a first paging frame from a first base station and initiating a timing sequence after receiving the first paging frame. The next recited steps scan for system parameters from a second base station and receives a second paging frame from the first base station.

In rejecting Claim 1 under 102(e) the Examiner points to Swanchara as disclosing the elements of Claim 1. More specifically, the Examiner states that Swanchara discloses receiving a first paging frame and initiating a timing sequence after receiving the first paging frame (col. 9, lines 41-58, and lines 58-65). However, the Applicant respectfully disagrees with the Examiner, and explains below, that the Examiner has misinterpreted Swanchara.

Swanchara does not initiate a timing sequence, referred to in Swanchara as a "free time period", after receiving a first paging frame as recited in the present Claim 1. Rather, Swanchara determines a Swanchara free time period before receiving the paging frame. In other words, Swanchara determines a free time period by evaluating a first sequence of messages (col. 9, lines 58-63, Fig. 7, item 701) which is before the paging frame, item 707. This is further demonstrated by Swanchara's equation 1 (col. 9). Nowhere in this equation for determining free time can it be seen where there is a variable representing the paging frame. Thus,

Swanchara's paging frame has nothing to do with initiating a timing sequence.

It will be further appreciated that the message content of Swanchara's item 701 is non-mobile specific and, as noted above, is before the mobile specific portion of the message frame, i.e., item 702, which contains the mobile specific page, item 707 (col. 9, lines 45-48). Thus, in a Swanchara system all the mobile phones will have the same calculated free time since all are receiving the non-mobile specific message and calculating a free time therefrom (col. 9, eq.1). Clearly, calculating a timing sequence in this manner is quite different than the present Claim 1, where the mobile specific page is used to initiate a timing sequence.

A further distinction between the present Claim 1 using a mobile specific page and Swanchara's using non-mobile specific information is readily appreciated by considering that the free time of Swanchara does not take into account such mobile specific characteristics such as system delays. For example, specific delays can include software and hardware execution delays, task switching, and other system functions that delay the mobile station in switching its receiver to process the alternative frequency of the evaluated system. Such delays are system (hardware and software) dependent. Other delays can include, for example, delays due to the physical movement of the mobile station in between mobile-specific paging frames, or other ambiguities in the distance of the mobile station from the base station due to the movement of the mobile station. As noted above, the present Claim 1 initiates a timing sequence after receiving a first page, or, in other words, after receiving mobile specific information.

Therefore, since Swanchara does not teach or disclose initiating a timing sequence after receiving a first paging frame as recited in the present Claim 1, Claim 1 and Claims 2-8, dependent therefrom, are patentable and should be allowed.

Claim 5 of the present application recites that the scanning step is limited to a predetermined amount of time, the amount of time being dependent on the amount of time between the first and second paging frames. It is clear from Swanchara's equation 1 (col. 11) that Swanchara does not disclose or suggest determining Swanchara free time based upon the time between paging frames. Therefore Claim 5 is patentable and should be allowed.

Claim 7 recites that the scanning step is limited to a predetermined amount of time, and that the amount of time is dependent on the amount of time required for the mobile phone to switch from the first receiving step to the scanning step and from the scanning step to the second receiving step. It will be appreciated that nowhere does Swanchara disclose or suggest that Swanchara free time be dependent upon switch times (see Swanchara equation 1, col. 11). Therefore, Claim 7 is patentable and should be allowed.

Claim 9 of the present application recites a method of evaluating a base station without missing a paging frame. The method includes the steps of initiating a timing sequence after receiving a first paging frame from a first base station; selecting a second base station to be evaluated during the timing sequence; scanning the second base station transmissions for system parameters; and receiving a second paging frame from the first base station.

In rejecting Claim 1 under 102(e) the Examiner again points to Swanchara as disclosing the elements of Claim 9. Specifically, the Examiner states that Swanchara discloses receiving a first paging frame and initiating a timing sequence after receiving the first paging frame (col. 9, lines 41-58, and lines 58-65).

However, as pointed out above and repeated here, Swanchara does not anticipate all the elements of the present Claim 9. Swanchara does not initiate a timing sequence, or a Swanchara "free time period", after receiving a first paging frame as recited in the present Claim 9. Rather, Swanchara determines the Swanchara free time period before receiving the paging frame. In other words, Swanchara determines a free time period by evaluating a first sequence of messages (col. 9, lines 58-63, Fig. 7, item 701) which is before the paging frame, item 707. Referring to Swanchara's equation 1 (col. 9) it cannot be seen that Swanchara's paging frame has anything to do with initiating a timing sequence. Nowhere in this equation for determining Swanchara's free time can it be seen where there is a variable representing a paging frame.

It will be further appreciated that the message content of Swanchara's item 701 is non-mobile specific and, as noted above, is before the mobile specific portion of the message frame, i.e., item 702, which contains the mobile specific page, item 707 (col. 9, lines 45-48). Clearly, calculating a timing sequence in this manner is quite different than the present Claim 1, where the mobile specific page is used to initiate a timing sequence.

The distinction between the present Claim 9 using a mobile specific page and Swanchara's using non-mobile specific information is readily appreciated by considering that the

free time of Swanchara does not take into account such mobile specific characteristics such as system delays; where specific delays can include, for example, software and hardware execution delays, task switching, and other system functions that delay the mobile station in switching its receiver to process the alternative frequency of the evaluated system. Such delays are system (hardware and software) dependent. Other delays can include, for example, delays due to the physical movement of the mobile station in between mobile-specific paging frames, or other ambiguities in the distance of the mobile station from the base station due to the movement of the mobile station. As noted above, the present Claim 9 initiates a timing sequence after receiving a first page, or, in other words, after receiving mobile specific information.

Therefore, since Swanchara does not teach or disclose initiating a timing sequence after receiving a first paging frame as recited in the present Claim 9, Claim 9 and Claims 10-16, dependent there from, are patentable and should be allowed.

Claim 17 of the present application as amended above recites a system of wireless base station and mobile station communication having first and second base stations transmitting paging frames and system parameters; and a mobile station registered with and receiving paging frames from the first base station. Upon receipt of a first paging frame from the base station the mobile station evaluates the second base station based on transmitted system parameters of the second base station without missing the paging frames from the first base station.

As noted above, and repeated here, Swanchara does not initiate a timing sequence based upon receipt of a paging frame (i.e., mobile specific information) but rather upon non-mobile specific information (col. 11, eq. 1, figure 7, item 701.) Therefore, Claim 17, and Claims 18, and 20-23, dependent therefrom, are patentable and should be allowed.

Claim 24 as amended above, recites a mobile station having a control head and a transceiver unit. The transceiver unit includes a transmitter; a receiver; a logic control assembly at least partially controlled by the control head; and an antenna assembly connected to the transceiver unit. The logic control assembly controls the operation of the transceiver unit to scan for and evaluate transmitted parameters of at least one base station under evaluation without missing paging frames from a registered base station. The transceiver unit can receive the parameters only during a predetermined amount of time, the amount of time being dependent on the amount of time between the paging frames for the mobile station transmitted by the registered base station.

As pointed out above, and repeated here, Swanchara does not determine Swanchara free time based upon time between paging frames but rather on information contained in a non-mobile specific portion of a frame of data (col. 11, equation 1, col. 13, lines 17-31). Nowhere can it be seen where Swanchara discloses or suggest determining free time based upon the amount of time between mobile specific paging frames. Therefore, Claim 24, and Claims 25-29 and 31, dependent therefrom, are patentable and should be allowed.

Lastly, amended claims 17 and 24 are the same scope as original dependent claims 19 and 30 respectively. Therefore, Claims 17 and 24 are entitled to the same scope of protection.

In accordance with 37 C.F.R. 1.97(c) a copy of U.S. patent 6,119,002 to Alanara, an associated Information Disclosure Statement (IDS) and a Form 1449 are enclosed. The filing of this IDS is not to be construed to be an admission that the information cited in the statement is, or is considered to be, material to the patentability of the present application. Moreover, it will be appreciated that this commonly owned patent starts a timer after receiving a repeated control word on an analog control channel (ACC); unlike the present application, which as amended and described above, initiates a timer after receiving a digital control channel (DCC) page frame.

A check for \$180.00 for the IDS is enclosed. Please charge account 501924 for any fee deficiency.

For all of the foregoing reason, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issue remain, the Examiner is invited to call Applicants' Attorney at the telephone number indicated below.



Respectfully submitted,

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*2/10/02*  
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Specification

Cross-Reference to Related Application

This application claims priority from Provisional Application Serial Number [\_\_\_\_\_] 60/126872, filed 30 March 1999, which is hereby incorporated by reference.

Claims

1. (Amended) A method of evaluating a base station without missing a digital control channel paging frame (paging frame), comprising the steps of:

receiving a first paging frame from a first base station;

initiating a timing sequence after receiving said first paging frame;

scanning for system parameters from a second base station; and

receiving a second paging frame from said first base station.

6. (Amended) The method of Claim 1, wherein the duration of said scanning step is limited to a predetermined amount of time, said predetermined amount of time being dependent on mobile station architecture.

9. (Amended) A method of evaluating a base station without missing a digital control channel paging frame (paging frame), comprising the steps of:

initiating a timing sequence after receiving a first paging frame from a first base station;

selecting a second base station to be evaluated during said timing sequence;

scanning said second base station transmissions for system parameters; and

receiving a second paging frame from said first base station.

13. (Amended) The method of Claim 9, wherein the duration of said scanning step is limited to a predetermined amount of time, said predetermined amount of time being dependent on mobile station architecture.

17. (Amended) A system of wireless base station and mobile station communication, comprising:

first and second base stations transmitting digital control channel paging frames and system parameters; and

a mobile station registered with and receiving paging frames from said first base station;

wherein receipt of a first paging frame from said first base station triggers evaluation of said second base station, said mobile station evaluates said second base station based on

transmitted system parameters of said second base station without missing said paging frames from said first base station.

24. (Amended) A mobile station, comprising:

a control head;

a transceiver unit, comprising

a transmitter;

a receiver; and

a logic control assembly at least partially controlled by said control head; and

an antenna assembly connected to said transceiver unit;

wherein said logic control assembly controls the operation of said transceiver unit to scan for and evaluate transmitted parameters of at least one base station under evaluation without missing digital control channel paging frames from a registered base station, wherein said transceiver unit receives said parameters only during a predetermined period of time, a duration of said period of time being dependent on the amount of time between said paging frames for said mobile station transmitted by said registered base station.

29. (Amended) The mobile station of Claim 24, wherein said transceiver unit can receive said parameters only during a predetermined amount of time, said predetermined amount of time being dependent on the architecture of said mobile station.